

In the Claims:

1. (Currently Amended) A method of determining capital investment in a wireless network, the method comprising:

determining, using a computer system, a subscriber profit proxy for a plurality of subscribers in the wireless network, the wireless network comprising multiple cell sites, each cell site having a coverage area divided into sectors, each sector having at least one cell site antenna serving that sector, the wireless network thereby comprising multiple sectors;

determining, using the computer system, ~~a number of minutes of network~~ use over a period of time for one or more of the subscribers;

determining, using the computer system, a service quality metric per sector for a first sector in the wireless network;

determining, using the computer system, the service quality metric per sector for one or more other sectors in the wireless network;

determining, using the computer system, an investment return per sector for the first sector and each of the one or more other sectors in the wireless network, wherein the investment return is based upon the subscriber profit proxy for the plurality of subscribers, the ~~number of minutes of network~~ use over the period of time for the one or more of the subscribers, and the service quality metric per sector in the wireless network; and

prioritizing, using the computer system, the sectors based upon the investment return per sector for each of the sectors, to determine a prioritized order of the sectors for capital investment; and

selecting one of the wireless network sectors for capital investment, the selecting

equipment deployment based at least in part on a highest priority in the investment return per sector prioritized order of the sectors.

2. (Original) The method of claim 1, wherein the subscriber profit proxy is based at least in part on revenue collected from the subscriber, an expected number of months under a contract, an acquisition cost, and a service delivery cost.
3. (Previously Presented) The method of claim 2, wherein the subscriber profit proxy (SPP) value is determined at least in part by the equation:

$$SPP_i = V_i * M_i - A_i - S_i$$

wherein

V_i is the revenue per month for subscriber I;

M_i is the expected months under contract for subscriber I;

A_i is the acquisition cost for subscriber I; and

S_i is the service delivery cost for subscriber I.

4. (Currently Amended) The method of claim 1, wherein the network use is a minutes of use over the period of time and is based on call detail records collected during peak usage periods.

5. (Previously Presented) The method of claim 1, wherein the service quality metric per sector comprises a dropped call rate per sector.

6. (Previously Presented) The method of claim 5, wherein the dropped call rate per sector is determined from call detail records.

7. (Previously Presented) The method of claim 5, wherein the determining the investment return comprises:

determining a profit per sector;

determining an investment needed per sector to reduce dropped calls in each sector; and

determining the investment return per sector based at least in part on the profit per sector, the dropped call rate per sector, and the investment needed per sector to reduce dropped calls in each sector.

8. (Previously Presented) The method of claim 7, wherein the determining the profit per sector is performed in accordance with the equation:

$$P_k = \sum_i [SPP_i * \frac{MOU_{ik}}{\sum_j MOU_{ij}}]$$

wherein

k represents a sector;

I represents a subscriber;

P_k is the profit for sector k;

SPP_i is the subscriber profit proxy value for subscriber I;

MOU_{ik} is the minutes of use for subscriber I in sector k; and

$\sum_j MOU_{ij}$ is a sum of the minutes of use for subscriber I in all sectors.

9. (Previously Presented) The method of claim 7, wherein the determining the investment return per sector (R_k) is performed in accordance with the equation:

$$R_k = P_k + D_k - I_k$$

wherein

k represents a sector;

P_k is the profit for sector k ;

D_k is the drop-call rate for sector k ; and

I_k is investment needed to reduce dropped calls in sector k .

10-21. (Canceled)

22. (Currently Amended) A computer program product for analyzing a wireless network, the computer program product having a non-transitory computer-readable medium with a computer program embodied thereon, the computer program product comprising:

computer program code for determining a subscriber profit proxy for a plurality of subscribers in the wireless network, the wireless network comprising multiple cell sites, each cell site having a coverage area divided into sectors, each sector having at least one cell site antenna serving that sector, the wireless network thereby comprising multiple sectors;

computer program code for determining ~~a number of minutes of network~~ use over a

period of time for one or more of the subscribers;

computer program code for determining a service quality metric per sector for a first sector in the wireless network;

computer program code for determining a service quality metric per sector for one or more other sectors in the wireless network;

computer program code for determining an investment return per sector for the first sector and each of the one or more other sectors in the wireless network, wherein the investment return is based upon the subscriber profit proxy for the plurality of subscribers, the ~~number of minutes~~ ~~of~~ ~~network~~ use over the period of time for the one or more of the subscribers, and the service quality metric per sector in the wireless network; ~~and~~

computer program code for prioritizing the sectors based upon the investment return per sector for each of the sectors, to determine a prioritized order of the sectors for capital investment; and

computer program code for identifying one of the wireless network sectors for ~~capital investment, the identifying equipment deployment~~ based at least in part on a highest priority in the investment return per sector prioritized order of the sectors.

23. (Original) The computer program product of claim 22, wherein the computer program code for determining a subscriber profit proxy includes computer program code for including revenue collected from the subscriber, an expected number of months under a contract, an acquisition cost, and a service delivery cost.

24. (Previously Presented) The computer program product of claim 22, wherein the computer program code for determining a subscriber profit proxy (SPP) value includes computer program code for performing the equation:

$$SPP_i = V_i * M_i - A_i - S_i$$

wherein

V_i is the revenue per month for subscriber I;

M_i is the expected months under contract for subscriber I;

A_i is the acquisition cost for subscriber I; and

S_i is the service delivery cost for subscriber I.

25. (Currently Amended) The computer program product of claim 22, wherein the network use is a minutes of use over the period of time and is based on call detail records collected during peak usage periods.

26. (Previously Presented) The computer program product of claim 22, wherein the computer program code for determining a service quality metric per sector includes computer program code for determining a dropped call rate per sector.

27. (Previously Presented) The computer program product of claim 26, wherein the dropped call rate per sector is determined from call detail records.

28. (Previously Presented) The computer program product of claim 26, wherein the computer program code for determining the investment return comprises:

computer program code for determining a profit per sector;

computer program code for determining an investment needed per sector to reduce dropped calls in each sector; and

computer program code for determining the investment return per sector based at least in part on the profit per sector, the dropped call rate per sector, and the investment needed per sector to reduce dropped calls in each sector.

29. (Previously Presented) The computer program product of claim 28, wherein the computer program code for determining the profit per sector includes computer program code to perform the equation:

$$P_k = \sum_i \left[SPP_i * \frac{MOU_{ik}}{\sum_j MOU_{ij}} \right]$$

wherein

k represents a sector;

i represents a subscriber;

P_k is the profit for sector k;

SPP_i is the subscriber profit proxy value for subscriber i;

MOU_{ik} is the minutes of use for subscriber i in sector k; and

$\sum_j MOU_{ij}$ is a sum of the minutes of use for subscriber i in all sectors.

30. (Previously Presented) The computer program product of claim 29, wherein the computer program code for determining the investment return per sector (R_k) includes computer program code for performing the equation:

$$R_k = P_k + D_k - I_k$$

wherein

k represents a sector;

P_k is the profit for sector k ;

D_k is the drop-call rate for sector k ; and

I_k is investment needed to reduce dropped calls in sector k .

31-42. (Canceled)

43. (Currently Amended) The method of claim 1, further comprising:

deploying additional equipment to a base transceiver station (BTS) serving the selected one of the sectors, based at least in part on the selecting one of the wireless network sectors for ~~capital investment equipment deployment~~.

44. (Previously Presented) The method of claim 43, wherein the additional equipment is selected from the group consisting of: a radio tower, an antenna, a radio, a cable, and combinations thereof.

45-53. (Canceled)

54. (Currently Amended) The method of claim 1, wherein the one of the wireless network sectors is served by a first base transceiver station (BTS) in the wireless network, and wherein the selecting one of the wireless network sectors for ~~capital investment equipment deployment~~ further comprises selecting all sectors served by the first BTS for ~~capital investment equipment deployment~~.

55. (Previously Presented) The computer program product of claim 22, further comprising computer program code for identifying additional equipment to deploy to a first base transceiver station (BTS) serving the one of the wireless network sectors.

56. (Previously Presented) The computer program product of claim 55, wherein the additional equipment is selected from the group consisting of: a radio tower, an antenna, a radio, a cable, and combinations thereof.

57. (Currently Amended) The computer program product of claim 22, further comprising computer program code for identifying additional wireless network sectors for ~~capital investment equipment deployment~~.

58. (Currently Amended) The computer program product of claim 22, wherein the one of the wireless network sectors is served by a first base transceiver station (BTS) in the wireless network, and wherein the computer program code for identifying one of the wireless network sectors for ~~capital investment equipment deployment~~ further comprises computer program code for identifying all sectors served by the first BTS for ~~capital investment equipment deployment~~.